

Antenna Specification

Mobile Satellite Communication Terminal

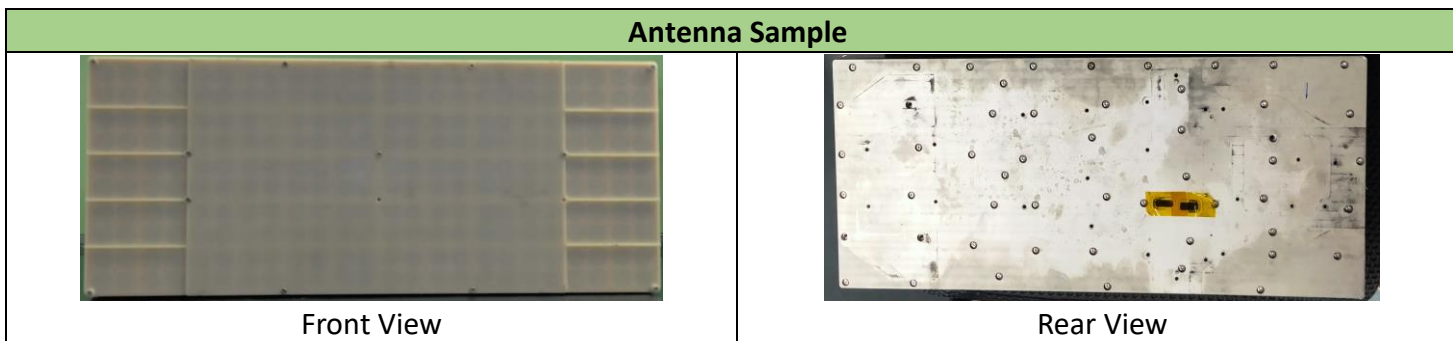
Model No.: V9 OTM45

Satellite

1. Antenna Design Parameters

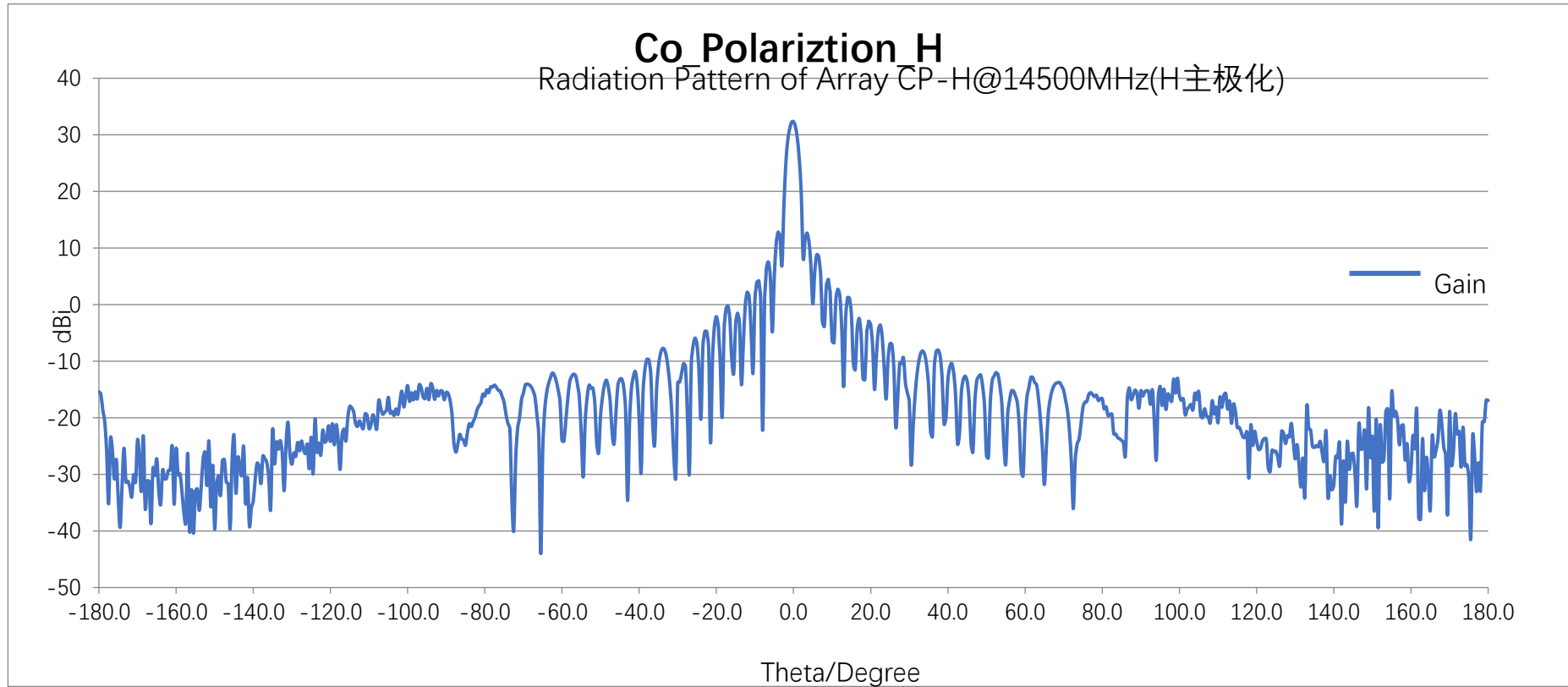
Item		Parameter
Antenna Type		Slotted waveguide array antenna
Equivalent to parabolic antenna size		0.45m
Antenna Efficiency		85%
Frequency Range	Tx	13.75~14.50GHz
	Rx	10.70~12.75GHz
Polarization		Linear/Circle
Receiving Gain		32.00dBi(in range of ± 10 degree) 3.69dBi(out range of ± 10 degree)
Transmitting Gain		33.21dBi(in range of ± 10 degree) 3.69dBi(out range of ± 10 degree)
G/T		11dB/K
First Sidelobe		≤ 14 dB
Cross Polarization Isolation		> 25 dB
Tx/Rx Polarization Isolation		> 85 dB

VSWR	<1.2:1
Interface type	WR75



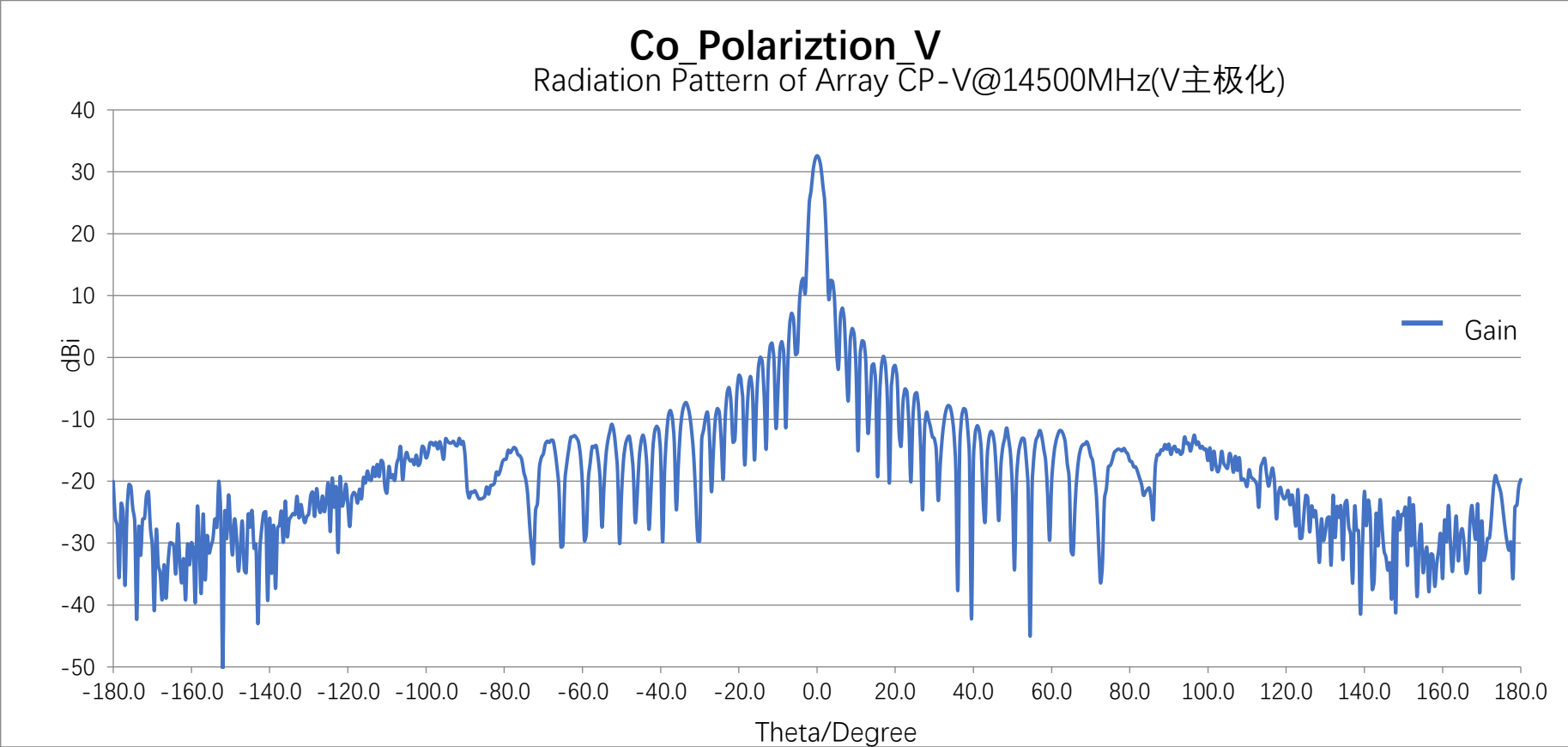
According to the antenna plots provided by the manufacturer, the satellite antenna complies with the requirement of §25.209(a)(2),(5).

2. Radiation Pattern - Linear - Frequency : 14.5 GHz – TX – Co_Polariztion– Horizontal



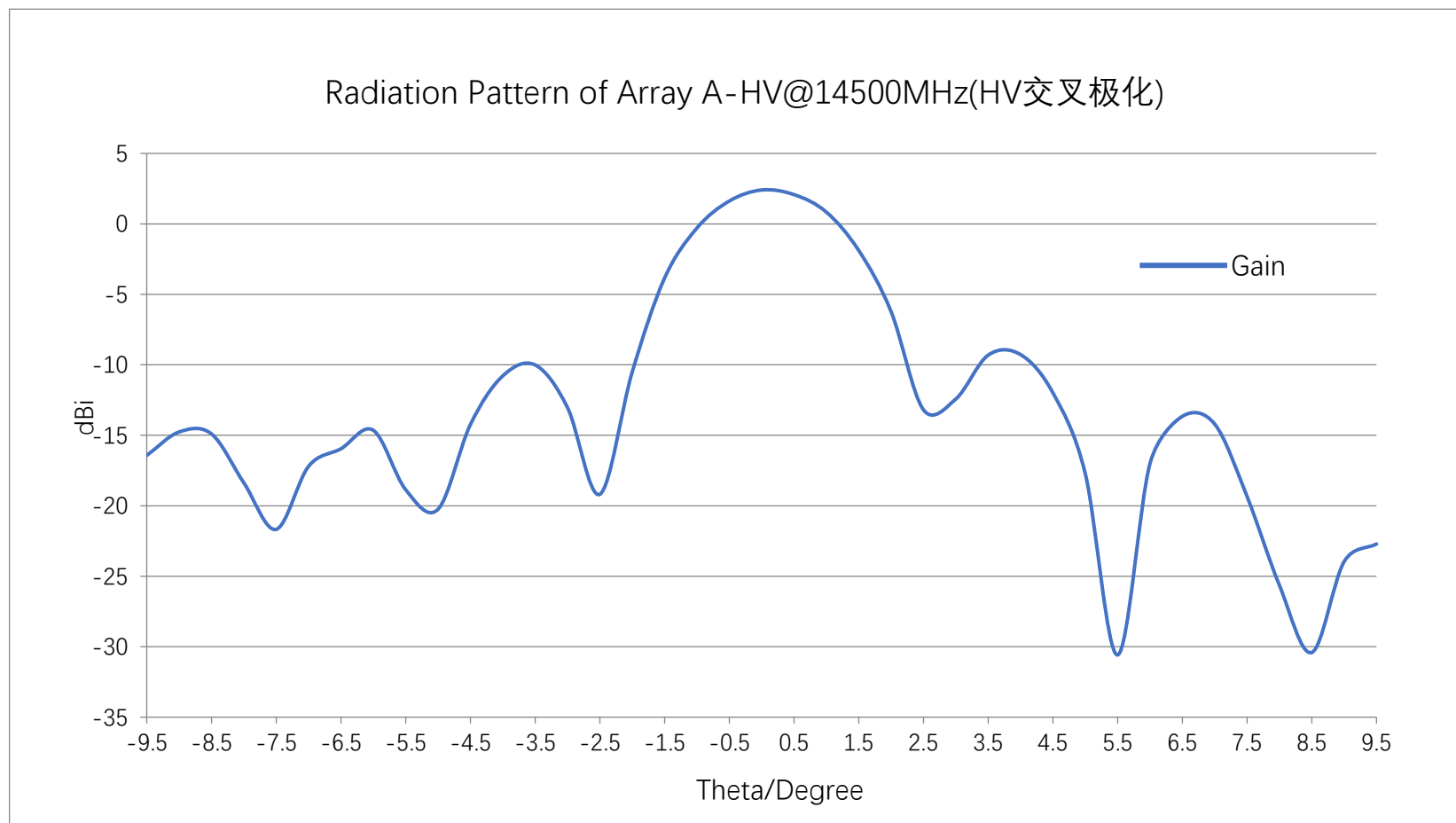
Frequency (GHz)	Gain (dBi)	HPBW 3dB
14.5	33.21	1.80

3. Radiation Pattern - Linear - Frequency : 14.5 GHz – TX -Co_Polariztion–Vertical

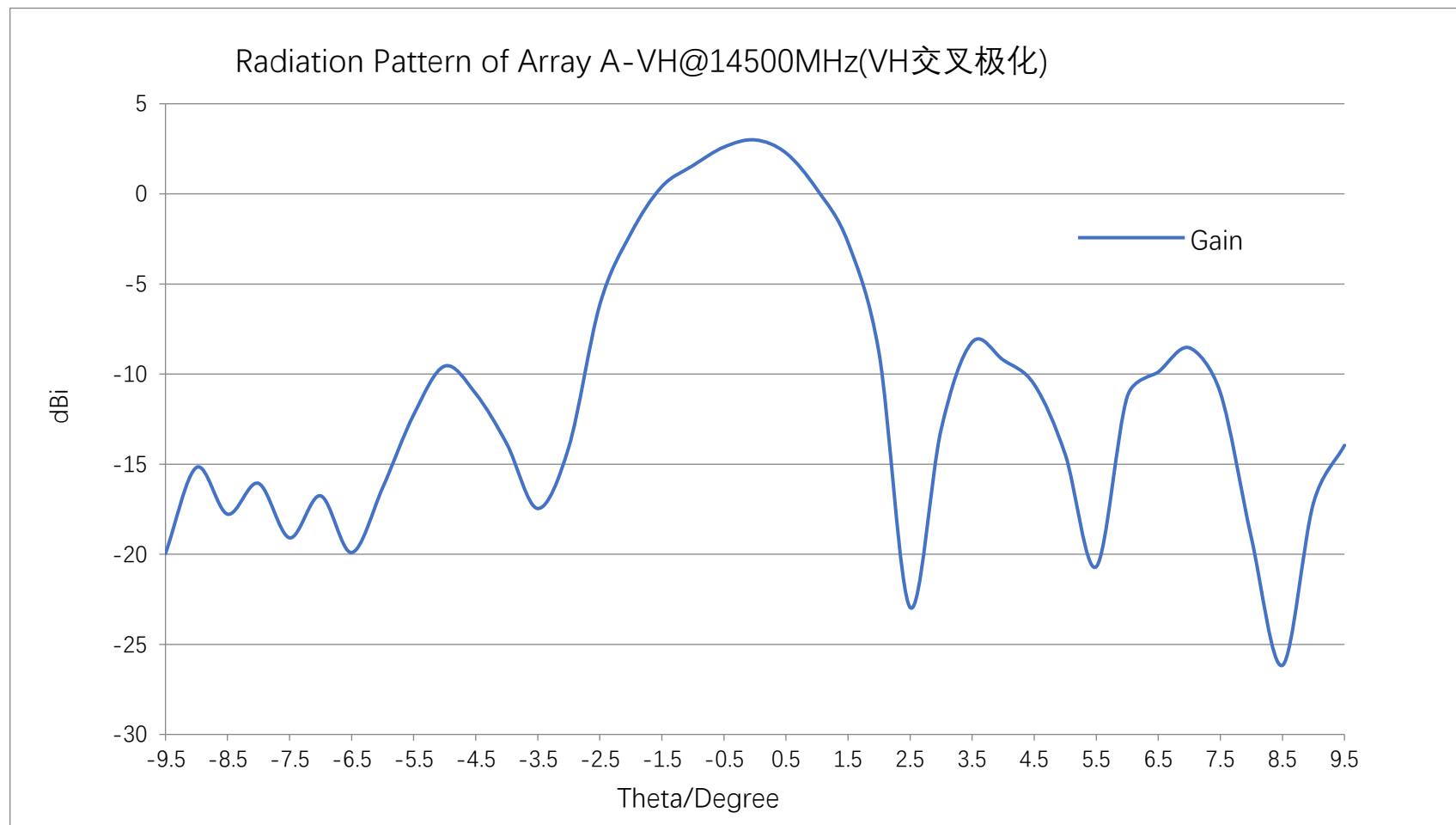


Frequency (GHz)	Gain (dBi)	HPBW 3dB
14.5	32.6	3

4. Radiation Pattern - Linear - Frequency : 14.5 GHz – TX – cross-polarized –HV-7.5to 7.5°



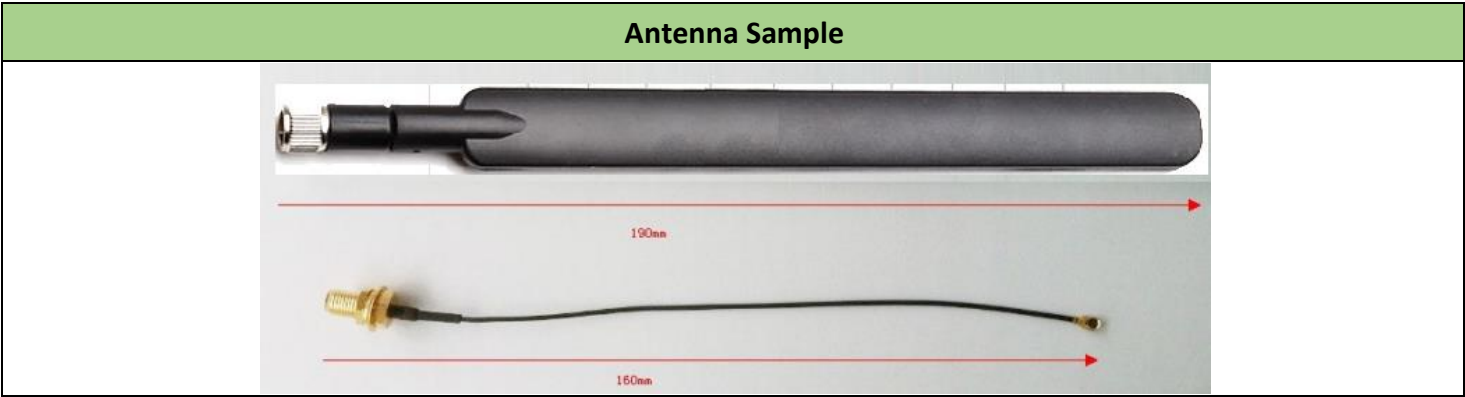
5. Radiation Pattern - Linear - Frequency : 14.5 GHz – TX – cross-polarized –VH-7.5to 7.5°



2.4G Wi-Fi

Antenna Design Parameters

Item	Parameter
Antenna Type	Dipole antenna
Polarization	Vertical
Frequency Range	2400~2500MHz
Antenna Gain	10.0dBi
VSWR	<2.0
Nominal Impedance	50Ω
Antenna Dimension	190mm/160mm
Lightning Protection	Direct Ground
Operating Temperature	-40~+70℃
Reposition Temperature	-55~+80℃



BLE

Antenna Design Parameters

Item	Parameter
Antenna Type	PCB antenna
Frequency Range	2400~2500MHz
Antenna Gain	1.5dBi
Nominal Impedance	50Ω

